

OVERVIEW

PAMLICO SOUND SUBBASIN 03020105

GENERAL SUBBASIN INFORMATION

The Pamlico River Subbasin encompasses 1,683 square miles. The predominant land cover is forest and wetland, with some cultivated cropland. With the exception of the Outer Banks, this subbasin is one of the most rural on the coast. Lake Mattamuskeet and the Swanquarter National Wildlife Refuges cover large areas in this subbasin.

SUBBASIN AT A GLANCE

COUNTIES:

Hyde, Dare, Carteret, Pamlico

MUNICIPALITIES:

Swanquarter, Engelhard, Avon, Buxton, Frisco, Hatteras, Ocracoke, Atlantic, Sealevel, Stacy

PERMITTED FACILITIES:

NPDES WWTP: 5
NonDischarge 8
Animal Operations. 0
Water Withdrawals:
Registered 6
Local Water Supply Plans:..... 3

POPULATION:

2010 Census:..... 9,701

DRAINAGE AREA:

Pamlico Sound:..... 1,683 sq mi.

IMPERVIOUS SURFACE:

Estimate:..... 10 sq mi.

CLASSIFICATIONS

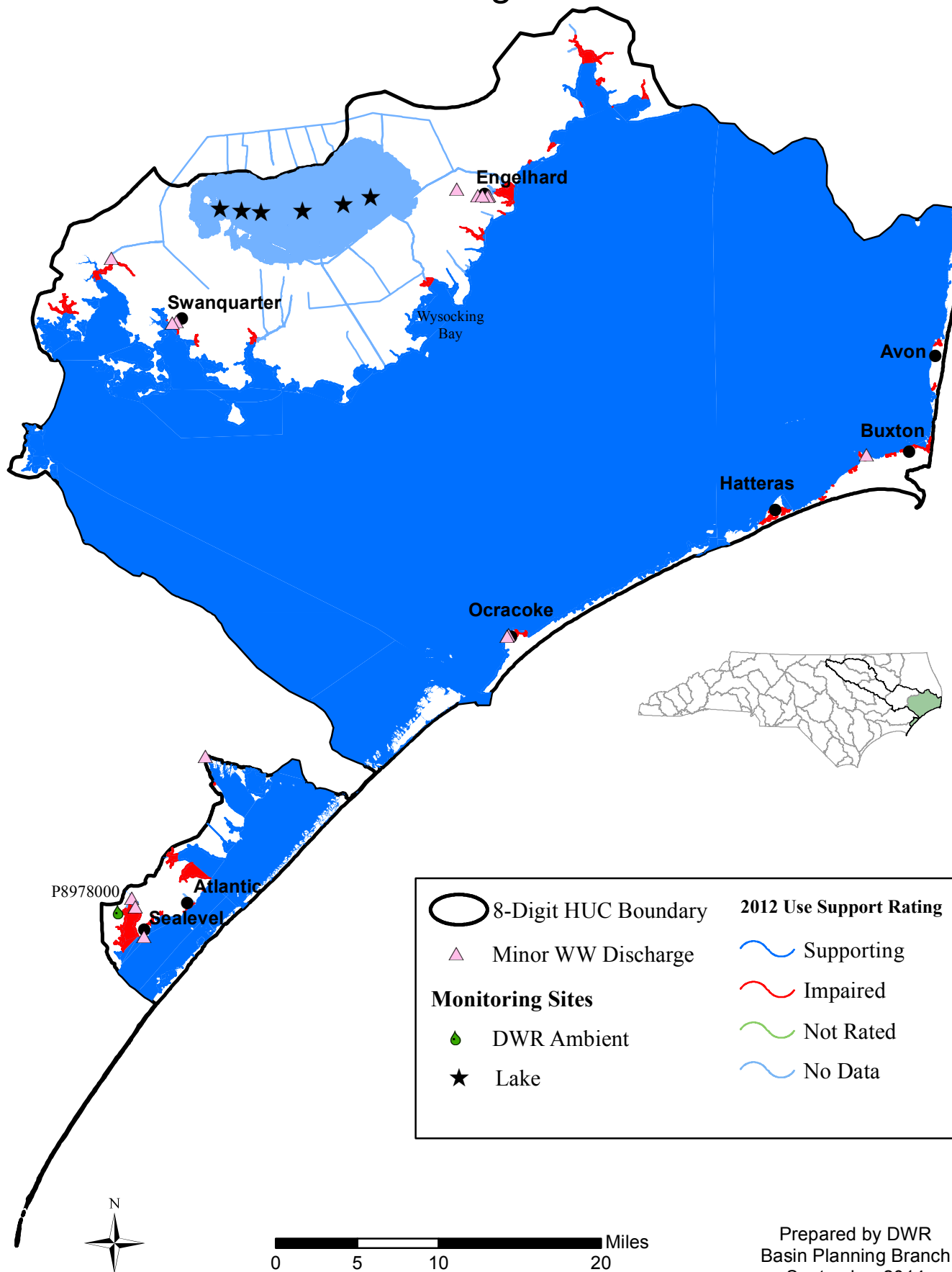
The entire basin was classified at nutrient sensitive waters(NSW) by the North Carolina Environmental Management Commission (EMC) in 1989.

TABLE 1: PAMLICO SOUND CLASSIFICATION SUMMARY

CLASSIFICATIONS FOUND IN HUC 03020105:					
<u>SALTWATER</u>	<u>ACRES</u>	<u>FRESHWATER</u>	<u>MILES</u>	<u>COAST</u>	<u>MILES</u>
Total	549,036	Total	14	Total	17
SUPPLEMENTAL CLASSIFICATIONS:					
SA;HQW.....	484,075	C;Sw.....	13	SB.....	17
SA;ORW.....	24,125	C;Sw,HQW....	1		
SC.....	40,648				
SC;HQW.....	135	Classification descriptions are found at: http://portal.ncdenr.org/web/wq/ps/csu			
SC;ORW.....	54				

FIGURE 1: PAMLICO SOUND SUBBASIN

Pamlico Sound 8-Digit HUC 03020105



USE SUPPORT HISTORY

TABLE 2: 03020105 - SUBBASIN IMPAIRMENT TOTALS BASED ON 2008, 2010, 2012 AND 2014 INTEGRATED REPORTS

IMPAIRED PARAMETER	2008 IR*		2010 IR*		2012 IR*		2014 IR*		IMPAIRMENT TYPE
	# OF AU'S	MILES/ ACRES	# OF AU'S	MILES/ ACRES	# OF AU'S	MILES/ ACRES	# OF AU'S	MILES/ ACRES	
Low Dissolved Oxygen									Aquatic Life
Turbidity	1	41 S a							Aquatic Life
Chlorophyll a									Aquatic Life
Fecal Coliform							1	35.3 S a	Recreational
Enterococcus	1	136 S a					1	136 S a	Recreational
Copper	1	41 S a	1	41 S a	1	41 S a	1	41 S a	Aquatic Life
Zinc									Aquatic Life
Water Column Mercury									Aquatic Life
Biological Integrity Macroinvertebrate									Aquatic Life
Shellfish Harvesting	62	6,540 S a	61	4,866 S a	59	4,766 S a	58	4,008 S a	Shellfish Harvesting
Mercury	All waters of the state are Impaired and fall under the Statewide TMDL: http://portal.ncdenr.org/web/wq/ps/mtu/tmdl/tmdls/mercury								Fish Consumption

*Note: There is not a direct comparison between the IR assessment periods. There could be methodology assessment changes (based on EPA guidance), splits in an assessment units (AU's) due to changes in the watershed or extent of an identified problem or corrections made.

m = miles; a = acres;

S = Saltwater; F = Freshwater

POPULATION

The 2010 census estimated population for this subbasin is 9,762 people. As population increases so does our demand for clean water from aquifer and surface water sources and for the land and water to assimilate wastes. Population estimates for each watershed within this subbasin are listed in the table below.

TABLE 3: POPULATION ESTIMATES IN HUC 03020105

10-DIGIT HUC	2000 POPULATION	2000 POPULATION DENSITY (PER SQ MI)	2010 ESTIMATED POPULATION	2020 ESTIMATED POPULATION	2030 ESTIMATED POPULATION
0302010501	2,894	12	2,622	2,381	2,135
0302010502	772	42	701	637	572
0302010503	4,204	40	4,733	5,332	5,867
0302010504	1,563	49	1,706	1,820	1,891
03020105	9,433	24	9,762	10,171	10,464

*NC Office of State Budget and Management: <http://www.osbm.state.nc.us/>

LAND USE

Waterfront development and agriculture continue to place increasing demands for achieving water quality and quantity. Data from the 2011 [National Land Cover Database](#) for this subbasin is presented in the following figure and table.

Land Use Planning

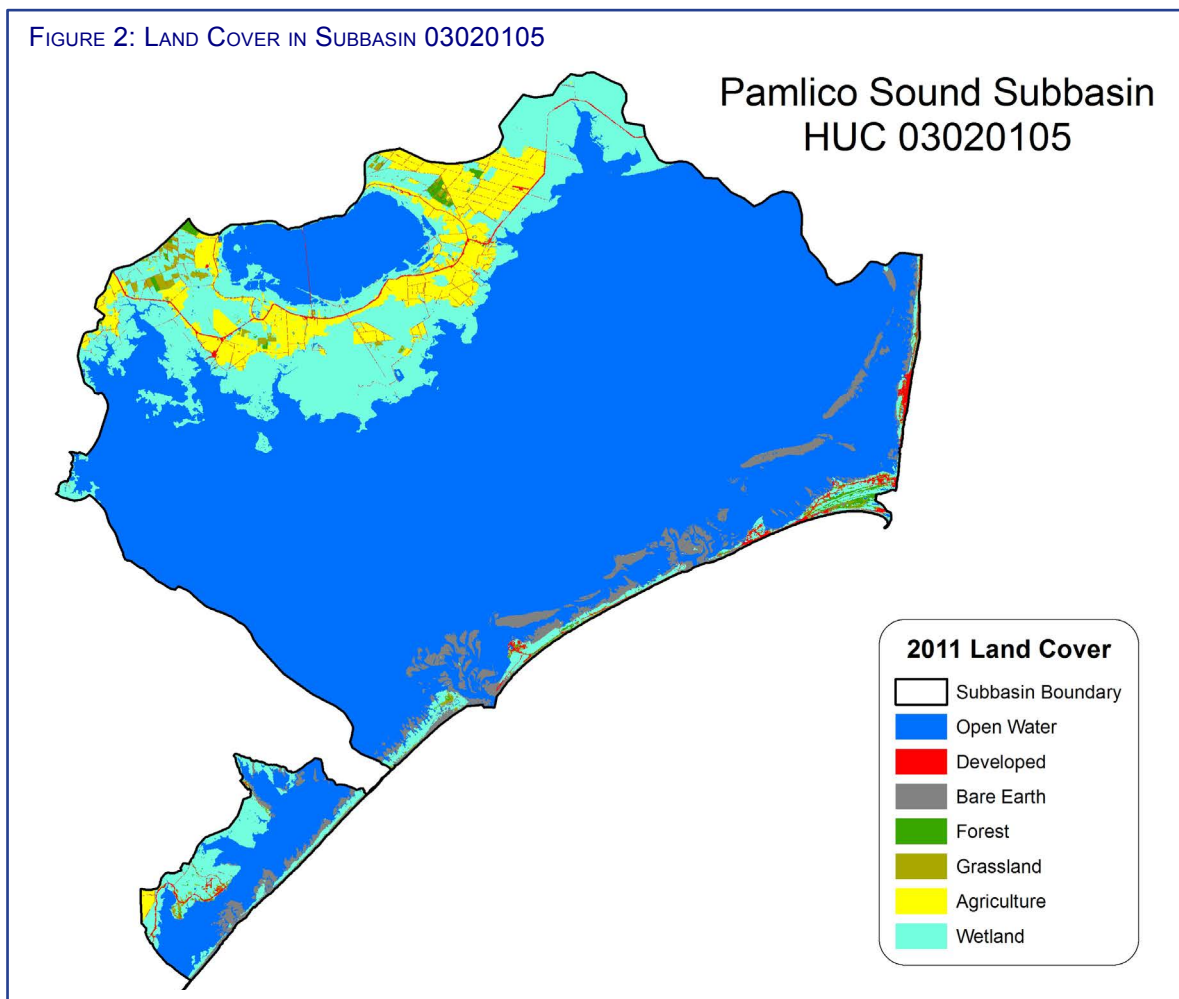
The Coastal Area Management Act (CAMA) requires each of the 20 coastal counties to have a local Land Use Plan in accordance with guidelines established by the Coastal Resources Commission (CRC). A land use plan is a collection of policies, maps, and implementation actions that serves as a community's blueprint for growth. The CRC's planning objective is for communities to adopt policies for coastal waters within their planning jurisdiction to help ensure that water quality is maintained if not impaired and improved if impaired. Local communities are required to devise policies that help prevent or control nonpoint source discharges through strategies such as impervious surface limits, vegetated riparian buffers, maintenance of natural areas, natural area buffers, and wetland protection. They are also required to establish policies and future land use map categories that are aimed at protecting open shellfish waters and

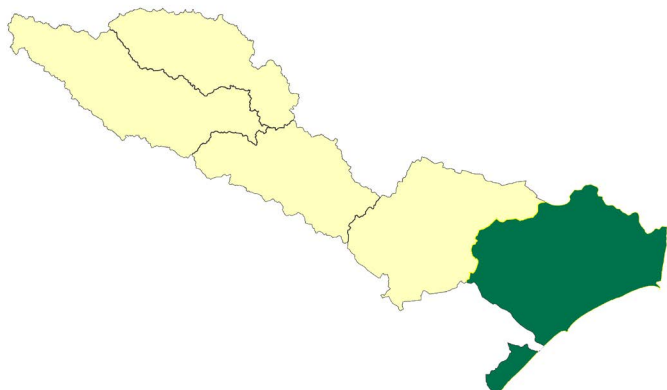
restoring closed or conditionally closed shellfish waters. To find more information about these Land Use Plans see the Division of Coastal Managements website: <http://portal.ncdenr.org/web/cm/land-use-planning>.

TABLE 4: 2011 LAND COVER PERCENTAGES

LAND COVER TYPE	PERCENT
Developed Open Space	2.32
Developed Low Intensity	1.25
Developed Medium Intensity	0.30
Developed High Intensity	0.02
Total Developed	3.89
Bare Earth Transition	12.90
Deciduous Forest	0.00
Evergreen Forest	1.46
Mixed Forest	0.08
Total non-Wetland Forest	14.44
Scrub Shrub	1.86
Grassland Herbaceous	0.66
Pasture Hay	0.00
Cultivated Crops	19.42
Total Agriculture	21.94
Woody Wetlands	32.50
Emergent Herbaceous Wetland	27.23
Total Wetlands	59.73

FIGURE 2: LAND COVER IN SUBBASIN 03020105





MONITORING DATA

PAMLICO SOUND SUBBASIN 03020105

USE SUPPORT ASSESSMENT SUMMARY

All surface waters in the state are assigned a classification reflecting the best-intended use of that water. To determine how well waterbodies are meeting their best-intended uses chemical, physical, and biological parameters are regularly assessed by DWR. These data are used to develop use support ratings every two years as reported to EPA; a collected list of all monitored waterbodies and their water quality rating is called the Integrated Report (IR) and Impaired waters are also reported on the 303(d) list. Water quality evaluation levels and how a waterbody earns a rating of Supporting or Impaired is explained in detail in the IR methodology.

In this subbasin, use support was assigned for aquatic life, recreation, shellfish harvesting, fish consumption and water supply categories. Waters are Supporting, Not Rated, or No Data in the aquatic life and recreation categories on a monitored or evaluated basis. All waters are Supporting in the water supply category on an evaluated basis based on reports from regional water treatment plant consultants. The [Integrated Report](#) provides a list of waterbodies in this subbasin and their most recent use support rating if monitored.

RECREATION

There are ~61 coast miles of water classified for primary recreation (SB) in this subbasin. Recreation uses in tidal saltwaters are rated based on NC's Enterococcus standard which requires a geometric mean of < 35 enterococci per 100 ml based upon a minimum of five samples within any consecutive 30 days. Enterococci are a subgroup of the fecal streptococcus group which generally occur in the digestive systems of humans and other warm-blooded animals along with fecal coliform bacteria. According to the EPA, Enterococci bacteria are better able to survive in salt water and, thus, more closely mimic other pathogens than do the fecal coliform bacteria.

Enterococcus samples are collected by the N.C. Recreational Water Quality Program (NCRWQP) within the Division of Marine Fisheries and not by DWR. Their sampling results and current swimming advisories are available at: <http://portal.ncdenr.org/web/mf/rwq-swim-advisories-current>.

The NCRWQP tests recreational beaches during the swimming season beginning on April 1st and ends October 31. All ocean beaches and high-use sound-side beaches (Tier 1) are tested weekly during the swimming season. Lower-use beaches (Tier II and Tier III) are tested twice a month. All sites are tested twice a month in October and monthly from November through March. The NCRWQP currently uses a running geometric mean and single sample test to determine compliance with their rules (15A NCAC 18A .3402): (a) The Enterococcus level in a Tier I

swimming area shall not exceed either: (1) A geometric mean of 35 enterococci per 100 milliliter of water, that includes a minimum of at least five samples collected within 30 days; or (2) A single sample of 104 enterococci per 100 milliliter of water. (b) The enterococci level in a Tier II swimming area shall not exceed a single sample of 276 enterococci per 100 milliliter of water. (c) The enterococcus level in a Tier III swimming area shall not exceed two consecutive samples of 500 enterococci per 100 milliliter of water.

AMBIENT

There is only one ambient monitoring station in this basin P8978000 along Broad Creek which was formerly considered in the White Oak Basin. The following graphs (Figures 1-6) show the annual mean or median data for select parameters over ~16yrs.

FIGURE 1: DISSOLVED OXYGEN LEVELS AT AMS P8978000

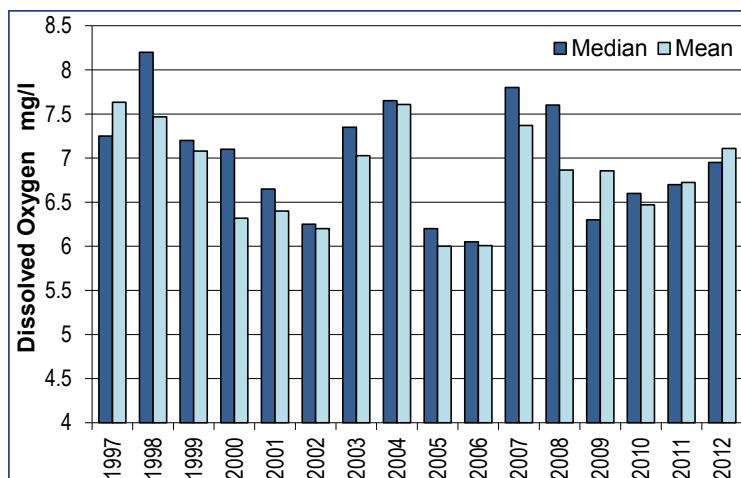


FIGURE 2: TURBIDITY LEVELS AT AMS P8978000

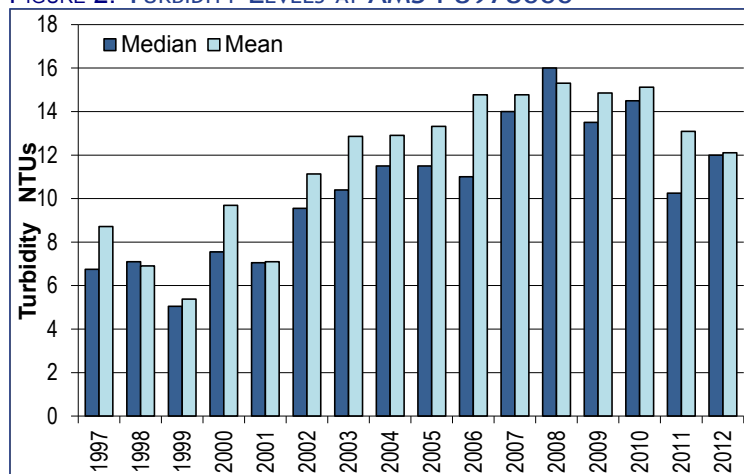


FIGURE 3: pH LEVELS AT AMS P8978000

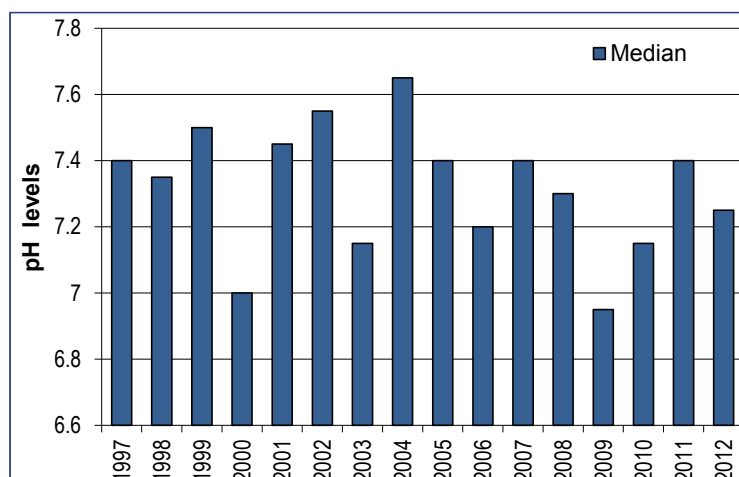


FIGURE 4: FECAL COLIFORM BACTERIA LEVELS AT AMS P8978000

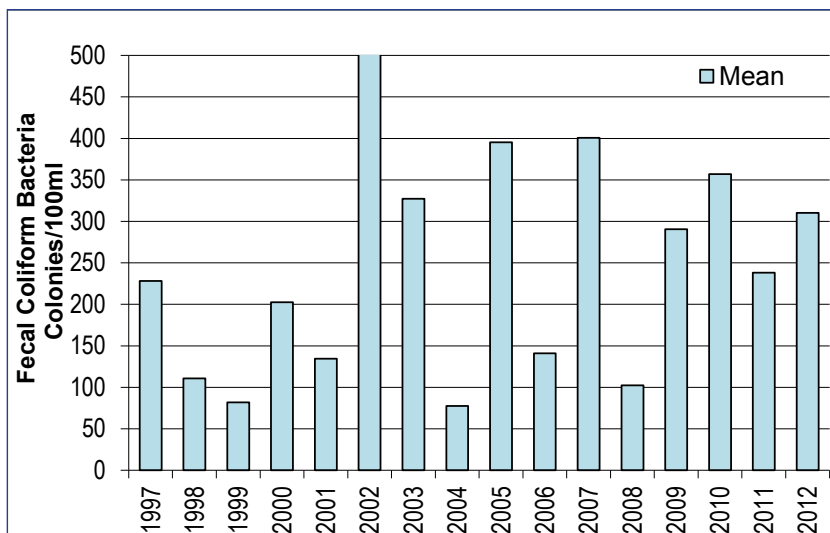


FIGURE 5: TOTAL NITROGEN LEVELS AT AMS P8978000

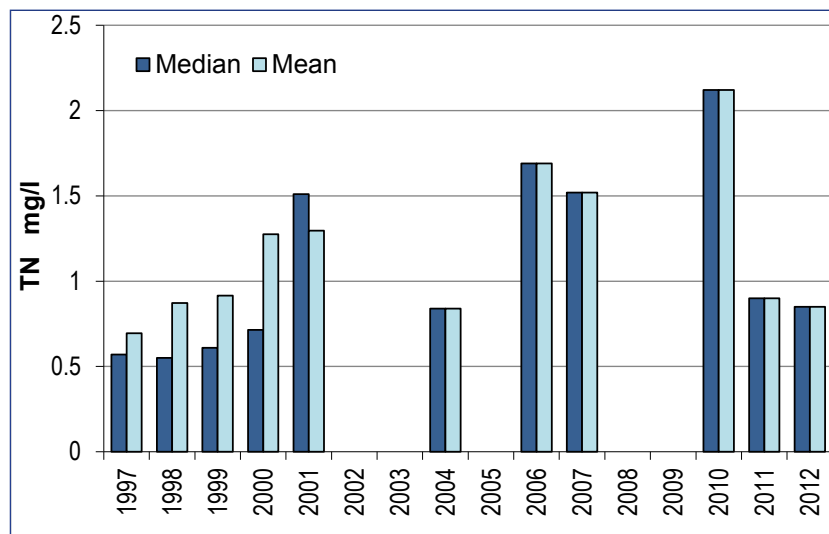
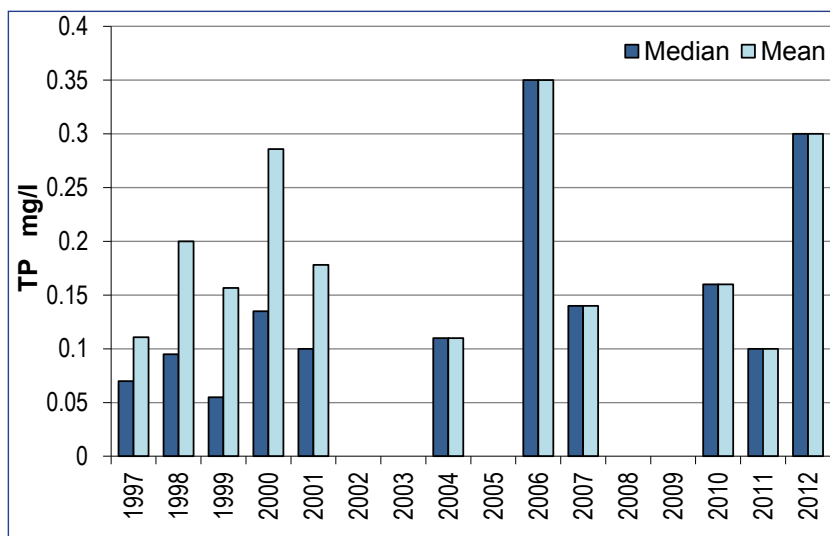


FIGURE 6: TOTAL PHOSPHOROUS LEVELS AT AMS P8978000



LAKE

Lake Mattamuskeet is located in the Coastal Plains of North Carolina. Situated on a vast peninsula lying between Albemarle Sound on the north and the Pamlico River on the south, this natural lake is within the Mattamuskeet National Wildlife Refuge. Lake Mattamuskeet, which is the largest natural lake in North Carolina, is shallow with no natural outlets. There are no overland tributaries into the lake and recharge is the result of precipitation and water intrusion from a man-made canal system. These canals were originally built to provide outlets from the lake to Pamlico Sound. Water from the sound frequently enters the lake and this has resulted in a change from freshwater to brackish conditions in the lake. The surrounding land is primarily used for agriculture with some residences located near the lakeshore. Lake Mattamuskeet is a very popular site for recreational fishermen, hunters and wildlife enthusiasts who come to watch and photograph flocks of migratory waterfowl.

Lake Mattamuskeet is divided by the NC Highway 94 causeway (constructed in 1942), which effectively divides the lake into two distinct basins. The western segment of Lake Mattamuskeet is turbid and dominated by phytoplankton while the eastern and larger segment of the lake is less turbid and dominated by submerged macrophytes. It is these plants that support a significant waterfowl population. Water exchange between the two segments of the lake occurs through five culverts located along the causeway.

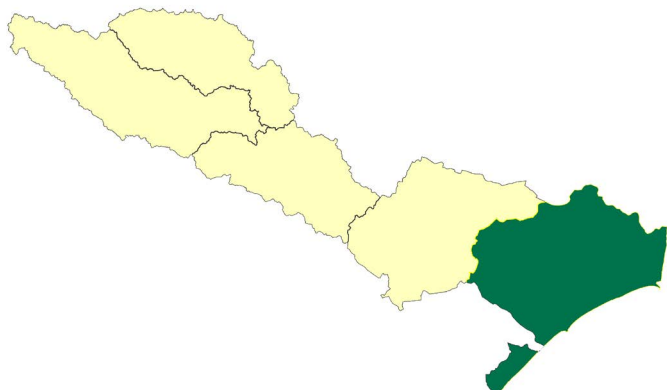
In 2012, Secchi depths in Lake Mattamuskeet ranged from 0.2 to 0.7 meter (mean maximum depth was 1.2 meters). Surface dissolved oxygen ranged from 7.3 to 9.8 mg/L and surface pH values ranged from 8.1 to 9.1s.u. Conductivity values in this lake are consistently elevated due to the intrusion of salt water. In 2012, conductivity ranged from 2000 to 2450 umhos/cm. Surface salinity values ranged from 1.06 to 1.26ppt. This range would be considered as mildly brackish.

Total phosphorus in Lake Mattamuskeet ranged from 0.02 to 0.11 mg/L and total Kjeldahl nitrogen ranged from 1.2 to 3.1 mg/L. Ammonia and nitrite plus nitrate values were at or below DWR laboratory detection levels at all six sampling sites. Chlorophyll a values ranged from 15 to 71µg/L. Of the 30 chlorophyll a samples analyzed in 2012, 50% were greater than the state water quality standard of 40µg/L and all of these occurred at the sampling sites located west of the Highway 49 causeway. Total solids ranged from 11 to 78 mg/L and turbidity ranged from 7.3 to 31 NTUs. The shallow nature of this lake allows for re-suspension of bottom sediments and organic materials by wave action and by wind mixing.

Water samples from the east and west sides of Lake Mattamuskeet were collected on September 6, 2012 and shipped to the Environmental Protection Agency, Region IV Laboratory for Algal Growth Potential Tests (AGPT). The purpose of this analysis is to determine which nutrient, nitrogen or phosphorus, is limiting to the growth of algae in each side of the lake. Based on the test results, phosphorus was found to be the limiting on both the east and west sides of Lake Mattamuskeet.

Lake Mattamuskeet was determined to exhibit extremely elevated biological productivity, or hypereutrophic conditions, based on the calculated NCTSI scores. Lake Mattamuskeet was previously determined to be hypereutrophic in June 2002 (during which time the region was experiencing a drought). Prior trophic state measurements had determined that the lake was eutrophic as far back as 1981 when DWR first sampled Lake Mattamuskeet.

More information about DWR's Lake Monitoring Program and data on Lake Mattamuskeet is available at: http://portal.ncdenr.org/c/document_library/get_file?uuid=07fbdfd4-cca9-47d4-beff-6af4836ce532&groupId=38364



SHELLFISH HARVESTING WATER

PAMLICO SOUND SUBBASIN 03020105

OVERVIEW

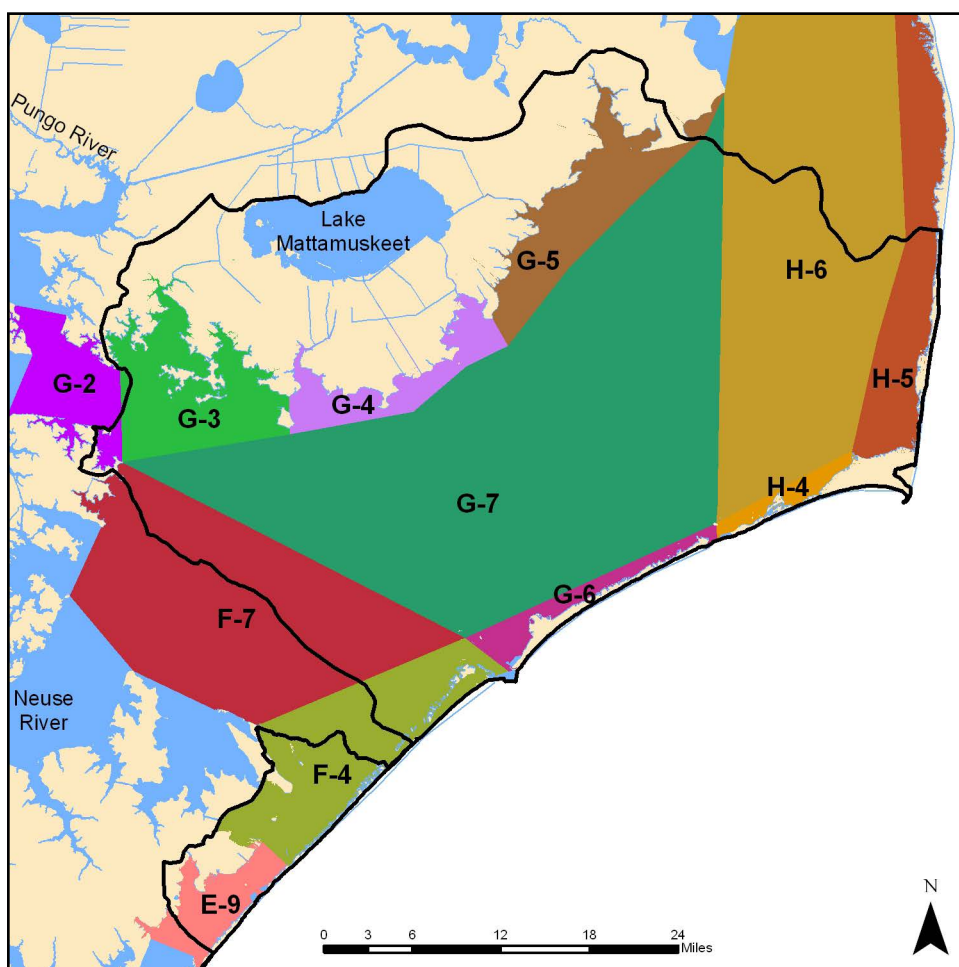
There are 519,897 acres classified as shellfish harvesting waters (SA;HQW). Specific Impaired waterbodies are listed in the Integrated Report. The Shellfish Sanitation and Recreational Water Quality Section of the Division of Marine Fisheries (DMF) is responsible for monitoring and classifying coastal waters as to their suitability for shellfish harvesting for human consumption, and inspection and certification of shellfish and crustacea processing plants.

The Shellfish Sanitation Program is conducted in accordance with the guidelines set by the Interstate Shellfish Sanitation Conference contained in the National Shellfish Sanitation Program (NSSP) Guide for the Control of Molluscan Shellfish Model Ordinance. Classifications of coastal waters for shellfish harvesting are done by means of a Sanitary Survey, which includes: a

shoreline survey of sources of pollution, a hydrographic and meteorological survey, and a bacteriological survey of growing waters. Detailed maps are available from the DMF website showing current shellfish growing areas: <http://portal.ncdenr.org/web/mf/shellfish-closure-maps>.

DWR uses DMF classifications to assign use support ratings for the shellfish harvesting category. By definition, Conditionally Approved-Open areas are areas that DMF has determined do not, or likely do not, meet water quality standards and these areas are rated Impaired, along with Conditionally Approved-Closed and Prohibited or Restricted areas. Only DMF Approved growing areas are rated as Supporting.

FIGURE 1: SHELLFISH GROWING AREAS IN HUC 03020105



Growing Area Data

This subbasin contains 11 DMF shellfish growing areas including: G-3, G-4, G-5, G-6, G-7, F-4, F-7, E-9, H-4, H-5, & H-6 as shown in Figure 1. The following summaries are from the most current and available DMF Shellfish Sanitation Sanitary Surveys. Note, not all growing areas are surveyed by DMF.

Area H-5 includes 57,263 water acres and oyster and clam production is considered fair. The survey area is characterized by three small-populated areas separated by miles of uninhabited dunes and marshes. The permanent population is estimated at 3,097 while seasonal tourism increases population to 40,000. Most of the area is within Cape Hatteras National Seashore and will never be developed. According to the Sanitary Survey of Outer Banks, Area H-5 bacteriological water quality has improved since the 2006 Sanitation Survey. There are 22 stations used to monitor Area H-5 currently. All but two of these sampling stations currently meet approved standards. Both of those not meeting standards, Mill Creek and Salvo Harbor, are located in closed shellfish areas.

The Long Shoal River, Area G-5, 2009 Survey indicates some improvement in overall bacteriological water quality. The land use in the area primarily is forested, agriculture row crops, several non-operational hog farms with lagoons, wildlife refuge, and the largest town is Englehard. Water movement in the area is influenced by wind, and wind is considered the major distributor of pollution. Sampling results indicated a decline in bacteriological water quality in Far Creek, while several stations had slight improvements since the 2006 survey and no longer exceed. The closed portion of Long Shoal River has seen improvement in bacteriological water quality in recent years.

According to the 2010 Sanitary Survey of Hatteras Area, Area H-4, an overall improvement in bacteriological water quality has occurred. Area H-4 is located along the Outer Banks at the western end of Hatteras Island where tourism is the main industry. Hatteras Village has an approximate population of 1,525 with an increase to 6,000 during peak tourist months; the town of Frisco has approximately 700 permanent residents, increasing seasonally to 5,000. There is no central WWTP within this area and all residences and businesses utilize conventional septic systems. Many of the septic systems are old and are installed in fill or coarse sand, allowing possible discharge to adjacent water via groundwater.

The 2013 Sanitary Survey of the Ocracoke, Area G-6, reports a widespread decline in bacteriological water quality since the last Survey with the most significant declines concentrated around the Oyster Creek and Horsepen Point region. Area G-6 is composed of waters adjacent to Ocracoke Island from Shell Island to Hatteras Inlet. The population center of this area is in Ocracoke village, with an estimated permanent population of 800, rising to ~4,500 during the summer. Rainfall is known to have little effect on water quality as the entire area has good tidal movement and high salinity. Despite the decline, all 11 of the sampling stations located in Area G-6 currently meet approved standards.

The 2013 Sanitary Survey of the Cedar Island, Area F-4, reports a slight decline in bacteriological water quality since the last survey. Most of the decline is concentrated in the Salter's Creek and Long Bay areas. Area F-4 consists of the waters of Thorofare Bay, Cedar Island Bay, Back Bay, eastern Core Sound, and the southern portion of Pamlico Sound. There are approximately 300 square miles of water and marshland in this isolated and remote area. The eastern boundary of Area F-4 consists of a chain of uninhabited barrier islands, of which Portsmouth is the most notable. While the area is predominantly marsh and open water, the communities of Cedar Island and Lola are also located in F-4. The permanent population of this area is just over 300, and little to no population growth can be expected in the future. Approximately 15 acres in the

upper portion of Cedar Island Bay will be reclassified from Approved to Prohibited and closed to shellfish harvest. This is a result of the horse stable located less than 100 feet from those waters. These waters are located at the head of the bay in an area with less water flow, and are likely affected after rainfalls heavy enough to result in runoff.

Growing Area E-9 is the portion of Core Sound from Hall Point near Atlantic to Oyster Creek and includes Styron Bay, Nelson Bay, Brett Bay, and Oyster Creek. It includes 19,944 acres with a permanent population of 1,626. The area is a productive shellfish harvest area for both clams and oysters. The watershed of this area is rural in nature and has experienced little development in recent years, although interest has increased recently in developing the waterfront areas. The area consists mostly of woodland, farmland and marshland. Bacteriological water quality in the majority of Area E-9 is excellent, especially during dry periods. The population has changed very little in recent years and is concentrated mainly around the communities of Atlantic and Sea Level. Drainage from these communities is largely facilitated by a system of ditches running between properties and along roads, and all of these ditches eventually drain into the surrounding creeks and sounds. Overall, stormwater runoff is likely the single largest contributor to water quality degradation in the E-9 area. After periods of heavy rainfall, increases in fecal coliform counts are seen in the Nelson Bay section and in Oyster Creek.

Growing Areas G-3 and G-4 includes a portion of the western Pamlico Sound waters. The population is 1,700 and projected to decline. Analysis of the bacteriological data indicates slight improvement in overall water quality in many areas of G-3 and no change at all in the G-4 area since the last triennial survey. Extremely heavy rainfall or unusual storm events can cause problems in the G-3 and G-4 areas, and temporary closures are recommended following these events.

Oyster Restoration

North Carolina Estuary Habitat Restoration project was funded under the American Recovery and Reinvestment Act of 2009. This project aims to create and restore 49 acres of oyster reefs off the inland coast of Hatteras Island. A further goal of the project is documenting the synergistic benefits to other fisheries in the areas around created reefs. The project was approved for \$5 million in funds to be managed by the North Carolina Coastal Federation.

2012 North Carolina Integrated Report

Pamlico Sound

Tar-Pamlico River Basin		10-digit Watershed		0302010501		Lake Mattamuskeet-Rose Bay	
> AU Number	Name	Description		Length or Area	Units	Classification	Category
Category	Rating	Use	Reason for Rating	Parameter	Year		
Tar-Pamlico River Basin		8-digit Subbasin		03020105		Pamlico Sound	
Tar-Pamlico River Basin		10-digit Watershed		0302010501		Lake Mattamuskeet-Rose Bay	
		12-digit Subwatershed		030201050108		Gray Ditch-Wysocking Bay	
> 29-60-1	Hickory Creek Bay	Entire Bay		35.5	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-60-1-1	Hickory Creek	From source to Hickory Creek Bay		7.8	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-60-2	Old Hill Bay	Entire Bay		208.6	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-60-3	Douglas Bay	Entire Bay		203.4	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-60-5	Lone Tree Creek	From source to Wysocking Bay		151.7	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-60a	Wysocking Bay	From source to 1000 meters north of Mackay Point		126.3	S Acres	SA;HQW	5
5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2006	
> 29-60b	Wysocking Bay	Entire Bay except for area 1000 meters north of Mackay Point		3,262.2	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
		12-digit Subwatershed		030201050105		Juniper Bay Creek-Juniper Bay	

2012 North Carolina Integrated Report

Pamlico Sound

Tar-Pamlico River Basin		10-digit Watershed		0302010501	Lake Mattamuskeet-Rose Bay-Pamlico Sound		
> AU Number	Name	Description	Length or Area	Units	Classification	Category	
Category	Rating	Use	Reason for Rating	Parameter	Year		
> 29-52-2	Northwest Creek	From source to Juniper Bay		19.4	S Acres	SA;HQW	5
5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
> 29-52-3	Rattlesnake Creek	From source to Juniper Bay		4.4	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-52-4	Old Haulover	From source to Juniper Bay		19.7	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-52-5	Doe Creek	From source to Juniper Bay		23.0	S Acres	SA;ORW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-52-6	Buck Creek	From source to Juniper Bay		57.3	S Acres	SA;ORW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-52-7	Laurel Creek	From source to Juniper Bay		8.4	S Acres	SA;ORW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-52a	Juniper Bay	Source to a line crossing the river at mouth of Rattlesnake Creek		66.6	S Acres	SA;ORW	5
5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
		12-digit Subwatershed	030201050106		Juniper Bay-Lake Landing		
> 29-(40.5)a	PAMLICO RIVER AND PAMLICO SOUND	From a line across Pamlico River from Roos Point to Persimmon Tree Point to Pamlico Sound and Pamlico Sound within a line beginning at Sandy Point and extending southerly to northeast tip of Ocracoke Island, thence along the Ocean Side of Ocracoke Island		457,942.0	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			

2012 North Carolina Integrated Report

Pamlico Sound

Tar-Pamlico River Basin			10-digit Watershed		0302010501		Lake Mattamuskeet-Rose Bay	
> AU Number	Name	Description	Length or Area	Units	Classification	Category		
Category	Rating	Use	Reason for Rating	Parameter	Year			
> 29-46.5	Pamlico Sound Swanquarter Bay/Juniper Bay ORW Area, including the Northeast Swanquarter Bay Area	All waters within a line beginning at Juniper Bay Point and running due South to Lat. 35 18'00", Long 76 13'20", thence due west to Lat. 35 18'00", Long 76 20'00", thence northwest to Shell Point	11,670.0	S Acres	SA;ORW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-51	Great Island Narrows	From Juniper Bay to Swanquarter Bay	1,809.4	S Acres	SA;ORW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-51-1	Raccoon Creek	From source to Great Island Narrows	5.8	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-52b	Juniper Bay	From mouth of Rattlesnake Creek to Pamlico Sound	1,980.0	S Acres	SA;ORW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-53	Cunning Harbor Bay	Entire Bay	282.0	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-54	West Bluff Bay	Entire Bay	1,191.9	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
12-digit Subwatershed			030201050107		Outfall Canal-East Bluff Bay			
> 29-55	Southwest Bay	Entire Bay	214.0	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				

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Tar-Pamlico River Basin		10-digit Watershed		0302010501	Lake Mattamuskeet-Rose Bay-Pamlico Sound		
> AU Number	Name	Description	Length or Area	Units	Classification	Category	
Category	Rating	Use	Reason for Rating	Parameter	Year		
> 29-56	East Bluff Bay	Entire Bay	499.0	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-56-1	Harbor Creek	From source to East Bluff Bay	3.8	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-56-2	Juniper Creek	From source to East Bluff Bay	14.6	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-57	Sage Bay	Entire Bay	50.1	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
		12-digit Subwatershed	030201050102	Rose Bay Canal-Rose Bay Creek			
> 29-44-1	Rose Bay Creek	From source to Rose Bay	154.3	S Acres	SA;HQW	5	
5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
> 29-44a1	Rose Bay	From source to a line 200 meters south of mouth of Rose Bay Creek	253.0	S Acres	SA;HQW	5	
5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
> 29-44a2	Rose Bay	From a line 200 meters south of mouth of Rose Bay Creek to line 600 meters south of mouth of Rose Bay Creek	65.0	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved	2006		
		12-digit Subwatershed	030201050103	Spencer Bay-Rose Bay			
> 29-42	Spencer Bay	Entire Bay	1,164.3	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			

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Tar-Pamlico River Basin			10-digit Watershed		0302010501		Lake Mattamuskeet-Rose Bay-Pamlico Sound		
>	AU Number	Name	Description	Length or Area	Units	Classification	Category		
	Category	Rating	Use	Reason for Rating	Parameter	Year			
>	29-42-1-1	Long Creek	From source to Germantown Bay	53.6	S Acres	SA;HQW	5		
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006			
>	29-42-1-2	Midgette Creek	From source to Germantown Bay	8.4	S Acres	SA;HQW	5		
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006			
>	29-42-1-3	Little Hammock Creek	From source to Germantown Bay	8.7	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	29-42-1-4	Swan Creek (Swine Creek)	From source to Germantown Bay	9.7	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	29-42-1-5	Jeanette Creek	From source to Germantown Bay	12.0	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	29-42-1-6	Ditch Creek	From source to Germantown Bay	13.1	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	29-42-1a	Germantown Bay	From source to a line starting at mouth of Long Creek extending across Bay to a point 77 meters south of Midgette Creek	179.7	S Acres	SA;HQW	5		
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006			
>	29-42-1b	Germantown Bay	Entire Bay except DEH closed area in northern part of bay	319.5	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				

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Tar-Pamlico River Basin		10-digit Watershed		0302010501	Lake Mattamuskeet-Rose Bay-Pamlico Sound		
> AU Number	Name	Description	Length or Area	Units	Classification	Category	
Category	Rating	Use	Reason for Rating	Parameter	Year		
> 29-42-2	Chellybelle Creek	From source to Spencer Bay	21.8	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-42-3	House Creek	From source to Spencer Bay	30.1	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-43	Striking Bay	Entire Bay	182.2	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-44-2	Tooley Creek	From source to Rose Bay	191.2	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-44-3	Lighwood Snag Bay	Entire Bay	172.1	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-44-4	Middle Shoal Creek (Mill Show Creek)	From source to Rose Bay	21.2	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-44-5	Deep Bay	Entire Bay	1,632.4	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-44-5-1	Old Haulover	From source to Deep Bay	28.9	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-44-5-3	Bernice Creek	From source to Deep Bay	21.3	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			

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Tar-Pamlico River Basin		10-digit Watershed		0302010501	Lake Mattamuskeet-Rose Bay-Pamlico Sound		
> AU Number	Name	Description	Length or Area	Units	Classification	Category	
Category	Rating	Use	Reason for Rating	Parameter	Year		
> 29-44-5-4	Middle Creek	From source to Deep Bay	11.9	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-44-5-5	Drum Cove	Entire Cove	39.2	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
12-digit Subwatershed		030201050104		Town of SwanQuarter-SwanQuarter Bay			
> 29-44-5-2	The Haulover	From Swanquarter Bay to Deep Bay	2.7	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-49-1	Shingle Creek	From source to Swanquarter Bay	7.4	S Acres	SA;ORW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-49-2	Cowpen Creek	From source to Swanquarter Bay	28.5	S Acres	SA;ORW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-49-3a	Oyster Creek	From source to a line 990 meters east of Swanquarter Bay	35.3	S Acres	SA;ORW	4	
4t	Impaired	Shellfish Harvesting	Standard Violation	Fecal Coliform (shellfish) GM 14 or 43	2006		
> 29-49-3b	Oyster Creek	From a line 990 meters east of Swanquarter Bay to Swanquarter Bay	120.0	S Acres	SA;ORW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-49-4	Eastard Bay	Entire Bay	154.5	S Acres	SA;ORW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-49-5	Caffee Bay	Entire Bay	477.7	S Acres	SA;ORW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			

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Tar-Pamlico River Basin		10-digit Watershed		0302010501	Lake Mattamuskeet-Rose Bay-Pamlico Sound		
>	AU Number	Name	Description	Length or Area	Units	Classification	Category
	Category	Rating	Use	Reason for Rating	Parameter	Year	
>	29-49-5-1	Island Creek	From source to Caffee Bay	14.3	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved		
>	29-49a	Swanquarter Bay	DEH closed area west of Swanquarter	136.2	S Acres	SA;ORW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2008	
	1	Supporting	Recreation	No Criteria Exceeded	Recreation Advisory Postings		
>	29-49b	Swanquarter Bay	Entire Bay except for closed area near Swanquarter	4,986.8	S Acres	SA;ORW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved		
>	29-50	Crab Cove (Crabb Cove)	Entire Cove	73.4	S Acres	SA;ORW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved		
Tar-Pamlico River Basin		10-digit Watershed		0302010502	Pamlico Sound-Ocracoke Inlet		
		12-digit Subwatershed		030201050204	Bluff Shoal-Gull Shoal		
>	29-58	Sanger Creek	From source to Pamlico Sound	8.7	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved		
>	29-59	Middle Creek	From source to Pamlico Sound	10.0	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved		
>	29-61	Hillerys Cove	Entire Cove	43.5	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved		
		12-digit Subwatershed		030201050201	Deep Cove-Middle Ground		

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Tar-Pamlico River Basin			10-digit Watershed		0302010502		Pamlico Sound-Ocracoke Inlet		
> AU Number	Name	Description	Length or Area	Units	Classification	Category			
	Category	Rating	Use	Reason for Rating	Parameter	Year			
> 27-157	Little Porpoise Bay	From source to Pamlico Sound			176.1	S Acres	SA;HQW,NSW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-41	Mouse Harbor	Entire Bay			774.4	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-41-2	Southward Bay	Entire Bay			345.8	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-41-2-1	Cedar Creek	From source to Southward Bay (2.06240010261536 S Miles)			12.5	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-41-2-2	Island Creeks	From sources to Southward Bay			43.8	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-41-2-3	Voliva Cove	Entire Cove			30.9	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-41-2-4	Fate Cove	Entire Cove			14.6	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-41-2-5	House Cove	Entire Cove			28.4	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-41-3	Hog Cove	Entire Cove			15.5	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				

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Tar-Pamlico River Basin			10-digit Watershed		0302010502		Pamlico Sound-Ocracoke Inlet	
> AU Number	Name	Description	Length or Area	Units	Classification	Category		
	Category	Rating	Use	Reason for Rating	Parameter	Year		
> 29-41-4	Flat Cove	Entire Cove	11.0	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-41-5	Oak Cove	Entire Cove	15.9	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-41-6	Long Creek	From source to Mouse Harbor	84.7	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-41-7	Lighthouse Creek	From source to Mouse Harbor	9.1	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-45	Tolers Bay	Entire Bay	120.8	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-46	White Perch Bay	Entire Bay	97.9	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-47	Shell Bay	Entire Bay	2,063.4	S Acres	SA;ORW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-47-1	Judith Narrows	From White Perch Bay to Shell Bay	84.4	S Acres	SA;ORW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-47-2	The Blowout	From Bernice Creek to Shell Bay	1.2	S Acres	SA;HQW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			

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Tar-Pamlico River Basin			10-digit Watershed		0302010502		Pamlico Sound-Ocracoke Inlet	
> AU Number	Name	Description	Length or Area	Units	Classification	Category		
	Category	Rating	Use	Reason for Rating	Parameter	Year		
> 29-47-3	Shell Narrows	From Swanquarter Bay to Shell Bay	298.5	S Acres	SA;ORW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-48	Smokehouse Cove	Entire Cove	43.6	S Acres	SA;ORW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
12-digit Subwatershed			030201050205		Howard Reef-Ocracoke Island			
> 29-77	Cockrel Creek	From source to Pamlico Sound	9.0	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-78	Shingle Creek	From source to Pamlico Sound	10.7	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-79	North Bitterwash Creek	From source to Pamlico Sound	6.4	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-80	South Bitterwash Creek	From source to Pamlico Sound	8.7	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-81	Knoll Creek	From source to Pamlico Sound	10.8	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-82	Knoll House Creek	From source to Pamlico Sound	2.4	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 29-83	Try Yard Creek	From source to Pamlico Sound	10.1	S Acres	SA;HQW	2		
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				

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Tar-Pamlico River Basin			10-digit Watershed		0302010502		Pamlico Sound-Ocracoke Inlet	
>	AU Number	Name	Description		Length or Area	Units	Classification	Category
	Category	Rating	Use	Reason for Rating	Parameter		Year	
>	29-84	Little Swash Opening	From source to Pamlico Sound		12.1	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	29-85	Old Hammock Creek	From source to Pamlico Sound		1.5	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	29-86	Island Creek	From source to Pamlico Sound		1.4	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	29-87	Sand Hole Creek	From source to Pamlico Sound		3.9	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
			12-digit Subwatershed	030201050210		Oceanside Seashore-Portsmouth Island		
>	27-148.5	Neuse-Southeast Pamlico Sound ORW Area	All waters within a line beginning at the southwest tip of Ocracoke Island, and extending northwest along the Tar-Pamlico River Basin and Neuse River Basin boundary line to Lat. 35 06'50", Long 76 06'30", thence in a southwest direction to Ship Point		38,582.8	S Acres	SA;ORW,NSW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	27-149	Core Sound	From Northeastern limit of White Oak River Basin (a line from Hall Point to Drum Inlet) to Pamlico Sound		18,201.7	S Acres	SA;ORW,NSW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
			12-digit Subwatershed	030201050207		Pamlico Sound-Ocracoke Inlet		
>	29-(40.5)e	PAMLICO RIVER AND PAMLICO SOUND	DEH closed areas adjacent to Ocracoke		48.9	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2006	

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Tar-Pamlico River Basin		10-digit Watershed		0302010502		Pamlico Sound-Ocracoke Inlet	
> AU Number	Name	Description	Length or Area	Units	Classification	Category	
Category	Rating	Use	Reason for Rating	Parameter	Year		
> 29-88	Northern Pond	Entire Pond	4.9	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-89	Mary Anns Pond	Entire Pond	2.9	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-91	Old Slough	From source to Pamlico Sound	3.1	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 99-(6)	Atlantic Ocean	From Ocracoke Inlet to hatteras inlet	17.3	Atlantic Coas	SB	2	
1	Supporting	Recreation	No Criteria Exceeded	Enterrococcus			
Tar-Pamlico River Basin		10-digit Watershed		0302010503		Pamlico Sound-Hatteras Inlet	
		12-digit Subwatershed		030201050303		Long Shoal-Gull Shoal	
> 29-75	Parched Corn Bay	Entire Bay	907.2	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
		12-digit Subwatershed		030201050307		Oceanside Seashore-Cape Hatteras	
> 99-(7)i	Atlantic Ocean	From SR 1280 to Hatteras Inlet	22.4	Atlantic Coas	SB	2	
1	Supporting	Recreation	No Criteria Exceeded	Enterrococcus			
		12-digit Subwatershed		030201050301		Otter Creek-Far Creek	
> 29-(40.5)b	PAMLICO RIVER AND PAMLICO SOUND	DEH closed areas at mouth of Middleton Creek	48.7	S Acres	SA;HQW	2	
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			

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Tar-Pamlico River Basin			10-digit Watershed		0302010503		Pamlico Sound-Hatteras Inlet		
>	AU Number	Name	Description		Length or Area	Units	Classification	Category	
	Category	Rating	Use	Reason for Rating	Parameter		Year		
>	29-(40.5)c	PAMLICO RIVER AND PAMLICO SOUND	DEH closed areas at mouth Long Creek		0.4	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	29-(40.5)d	PAMLICO RIVER AND PAMLICO SOUND	DEH closed areas at mouth Far Creek		120.0	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	29-64	Jeanette Creek	From source to Pamlico Sound		9.1	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	29-65	Back Creek	From source to Pamlico Sound		38.7	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	29-66	Middle Town Creek	From source to Pamlico Sound		71.5	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2006		
>	29-67	Cedar Creek	From source to Pamlico Sound		12.2	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2006		
>	29-69	Lone Tree Creek	From source to Pamlico Sound		1.8	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2006		
>	29-70-(4)	Far Creek	From a line extending due north and due south across Far Creek at flash beacon #9 to Pamlico Sound		389.5	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2006		

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Tar-Pamlico River Basin			10-digit Watershed		0302010503		Pamlico Sound-Hatteras Inlet	
>	AU Number	Name	Description	Length or Area	Units	Classification	Category	
	Category	Rating	Use	Reason for Rating	Parameter	Year		
>	29-70-5-(3)	Waupopin Creek	From a line beginning on the southwestern side of Waupopin Creek 300 yards from its junction with Far Creek, and running due northeast to the northeastern shore of Waupopin Creek to Far Creek	96.2	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
>	29-70-6	Oyster Creek	From source to Far Creek	50.1	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
>	29-71a	Berrys Bay	DEH closed area in northern part of bay	12.5	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
>	29-71b	Berrys Bay	Entire Bay except closed area in northern part of bay	395.2	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	29-72a	Otter Creek	Southern bay of Otter Creek	56.9	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2008		
>	29-72b	Otter Creek	From southern bay of Otter Creek to Pamlico Sound	377.7	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
12-digit Subwatershed			030201050302		Pains Bay-Long Shoal River			
>	29-73-(2)a	Long Shoal River	From U.S. Hwy. 264 to line extending river 506 meters south of Deep Creek	419.8	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
>	29-73-(2)b	Long Shoal River	From a line extending river 506 meters south of Deep Creek to Pamlico Sound excluding area at 5th Avenue Pump canal	2,641.0	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			

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Pamlico Sound

Tar-Pamlico River Basin			10-digit Watershed		0302010503		Pamlico Sound-Hatteras Inlet	
> AU Number	Name	Description	Length or Area	Units	Classification	Category		
	Category	Rating	Use	Reason for Rating	Parameter	Year		
> 29-73-(2)c	Long Shoal River	DEH closed area at 5th Avenue pump canal			35.2	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
> 29-73-4	Deep Creek	From source to Long Shoal River			45.8	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2008		
> 29-73-5	Muddy Creek	From source to Long Shoal River			49.2	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2008		
> 29-73-6	Clark Creek	From source to Long Shoal River			5.7	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-73-7	Broad Creek	From source to Long Shoal River			101.6	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-74	Pains Bay	Entire Bay			1,149.5	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 29-74-1a	Pains Creek	From source to closure line			31.5	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
> 29-74-1b	Pains Creek	From closure line to Pains Bay			24.9	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2006		
12-digit Subwatershed			030201050306		Pamlico Sound-Hatteras Inlet			
> 30-22-30-1	The Slash	From source to Sandy Bay			30.9	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2002		

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Pamlico Sound

Tar-Pamlico River Basin			10-digit Watershed		0302010503		Pamlico Sound-Hatteras Inlet		
>	AU Number	Name	Description		Length or Area	Units	Classification	Category	
<div><div>Category</div><div>Rating</div><div>Use</div><div>Reason for Rating</div><div>Parameter</div><div>Year</div></div>									
>	30-22-31	Austin Creek (Clubhouse Creek)	From source to Pamlico Sound		7.9	S Acres	SA;HQW	5	
<div><div>5</div><div>Impaired</div><div>Shellfish Harvesting</div><div>Loss of Use</div><div>Shellfish Growing Area-Prohibited</div><div>2002</div></div>									
>	30-22-32	Goose Creek	From source to Pamlico Sound		1.7	S Acres	SA;HQW	2	
<div><div>1</div><div>Supporting</div><div>Shellfish Harvesting</div><div>No Criteria Exceeded</div><div>Shellfish Growing Area-Approved</div></div>									
>	30-22-33	Hatteras Inlet	Entire Inlet		143.1	S Acres	SA;HQW	2	
<div><div>1</div><div>Supporting</div><div>Shellfish Harvesting</div><div>No Criteria Exceeded</div><div>Shellfish Growing Area-Approved</div></div>									
>	30-22a	Pamlico Sound	Portion of Pamlico Sound (from Croatan and Roanoke Sounds to a line running from Sandy Point south of Stumpy Point Bay to the northeast tip of Ocracoke Island) in subbasin 03-01-55 except DEH closure areas 30-22b through 30-22j.		315,239.5	S Acres	SA;HQW	2	
<div><div>1</div><div>Supporting</div><div>Shellfish Harvesting</div><div>No Criteria Exceeded</div><div>Shellfish Growing Area-Approved</div></div> <div><div>1</div><div>Supporting</div><div>Recreation</div><div>No Criteria Exceeded</div><div>Enterrococcus</div></div>									
>	30-22b	Pamlico Sound	The waters of Pamlico Sound which include the DEH closed area of a boundary begining at a point on land west of the Hatteras Ferry Landing at 35 degrees 12' 30" N- 75 degrees 42' 24" W, thence to a point in the ferry channel at 35 degrees 12' 37" N-75 deg		28.5	S Acres	SA;HQW	5	
<div><div>5</div><div>Impaired</div><div>Shellfish Harvesting</div><div>Loss of Use</div><div>Shellfish Growing Area-Prohibited</div><div>2002</div></div>									
>	30-22c	Pamlico Sound	The waters of the Pamlico Sound which include the DEH closed area with mouth 1.17 miles southwest of Durant Point.		15.2	S Acres	SA;HQW	5	
<div><div>5</div><div>Impaired</div><div>Shellfish Harvesting</div><div>Loss of Use</div><div>Shellfish Growing Area-Prohibited</div><div>2002</div></div>									
>	30-22d	Pamlico Sound	The waters of Pamlico Sound which include the DEH closed area with mouth 321 meters east of east mouth of Austin Creek		3.6	S Acres	SA;HQW	5	
<div><div>5</div><div>Impaired</div><div>Shellfish Harvesting</div><div>Loss of Use</div><div>Shellfish Growing Area-Prohibited</div><div>2002</div></div>									

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Pamlico Sound

Tar-Pamlico River Basin			10-digit Watershed		0302010503		Pamlico Sound-Hatteras Inlet	
>	AU Number	Name	Description		Length or Area	Units	Classification	Category
	Category	Rating	Use	Reason for Rating	Parameter		Year	
12-digit Subwatershed					030201050305		Sandy Bay-Hatteras Island	
>	30-22-27	Cape Creek	From source to Pamlico Sound		15.8	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002	
>	30-22-28	Brooks Creek	From source to Pamlico Sound		24.8	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002	
>	30-22-29	Joe Saur Creek	From source to Pamlico Sound		17.9	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002	
>	30-22-30-1-1	Duck Ponds and Isaac Pond	Entire ponds and connecting streams to The Slash		10.3	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002	
>	30-22-30a	Sandy Bay	DEH Closure Area		37.6	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002	
>	30-22-30b	Sandy Bay	Entire Bay excluding DEH closure Area		123.7	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	30-22e	Pamlico Sound	The waters of Pamlico Sound which include the DEH closed area: all creeks, canals, and tributaries along Hatteras Island between Brooks Point to west mouth of Joe Saur Creek.		18.7	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002	

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Pamlico Sound

Tar-Pamlico River Basin			10-digit Watershed		0302010503		Pamlico Sound-Hatteras Inlet	
> AU Number	Name	Description	Length or Area	Units	Classification	Category		
	Category	Rating	Use	Reason for Rating	Parameter	Year		
> 30-22f	Pamlico Sound	The waters of Pamlico Sound which include the DEH closed area: All waters south of a line bginning at a point on the shore north of Buxton at 35 degrees 16' 44" N- 75 degrees 31' 05" W, thence in awesterly direction through Bald Point to a point on the B			187.8	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2002		
12-digit Subwatershed				030201050304		Town of Avon-Hatteras Island		
> 30-22-18	Gull Island Bay	Entire Bay			16.5	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 30-22-19	Phipps Cove	From source to Pamlico Sound			5.8	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 30-22-20	The Drain	From source to Pamlico Sound			1.4	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 30-22-21	Spencer Creek	From source to Pamlico Sound			4.4	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 30-22-22	Mill Creek	From source to Pamlico Sound			16.2	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2002		
> 30-22-23	Peters Ditch	From source to Pamlico Sound			2.7	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2002		
> 30-22-24	Askins Creek	From source to Pamlico Sound			4.9	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2002		

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Pamlico Sound

Tar-Pamlico River Basin		10-digit Watershed		0302010503		Pamlico Sound-Hatteras Inlet	
> AU Number	Name	Description		Length or Area	Units	Classification	Category
Category	Rating	Use	Reason for Rating	Parameter	Year		
> 30-22-25	Boat Creek	From source to Pamlico Sound		1.9	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 30-22-26	Long Point Creek	From source to Pamlico Sound		6.3	S Acres	SA;HQW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
> 30-22g	Pamlico Sound	The waters of Pamlico Sound which include the DEH closed area at the mouth of Askins Creek		1.3	S Acres	SA;HQW	5
5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002	
> 30-22h	Pamlico Sound	The waters of Pamlico Sound which include the DEH closed area at the mouth of Mill Creek. This includes all waters south of a line from Big Island to the Outer Banks and all waters east of line from Big Island to Gibbs Point.		29.2	S Acres	SA;HQW	5
5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002	
> 99-(7)g	Atlantic Ocean	From New Inlet at Pea Island to 0.5 miles north of Ramp#34		20.1	Atlantic Coas	SB	2
1	Supporting	Recreation	No Criteria Exceeded	Enterrococcus			
> 99-(7)h	Atlantic Ocean	From 0.5 miles north of Ramp#34 to SR 1280		1.0	Atlantic Coas	SB	2
1	Supporting	Recreation	No Criteria Exceeded	Enterrococcus			
Tar-Pamlico River Basin		10-digit Watershed		0302010504		Cape Lookout Shoals-Core Banks	
		12-digit Subwatershed		030201050401		Core Banks-Drum Inlet	
> 21-35-7-1	Point of Grass Creek	From source to Core Sound		0.4	S Acres	SA;ORW	2
1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			

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Pamlico Sound

Tar-Pamlico River Basin			10-digit Watershed		0302010504		Cape Lookout Shoals-Core Banks		
>	AU Number	Name	Description		Length or Area	Units	Classification	Category	
	Category	Rating	Use	Reason for Rating	Parameter		Year		
>	27-149-1	Thorofare Bay	From source to Core Sound		1,674.5	S Acres	SA;ORW,NSW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved		2008		
>	27-149-1-2	Merkle Hammock Creek	From source to Thorofare Bay		186.0	S Acres	SA;NSW,ORW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Conditionally Approved		2008		
>	27-149-1-3	Barry Bay	From source to Thorofare Bay		606.6	S Acres	SA;ORW,NSW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Conditionally Approved		2008		
>	27-149-2	Rumley Bay	From source to Core Sound		167.7	S Acres	SA;ORW,NSW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-2-1	John Day Ditch	From source to Rumley Bay		2.4	S Acres	SA;HQB,NSW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-3	Lewis Creek	From source to Core Sound		72.3	S Acres	SA;ORW,NSW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-3-1	Southwest Prong Lewis Creek	From source to Lewis Creek		11.8	S Acres	SA;ORW,NSW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-3-2	Big Gut	From source to Lewis Creek		1.9	S Acres	SA;HQB,NSW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				

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Tar-Pamlico River Basin			10-digit Watershed		0302010504		Cape Lookout Shoals-Core Banks		
>	AU Number	Name	Description	Length or Area	Units	Classification	Category		
	Category	Rating	Use	Reason for Rating	Parameter	Year			
>	27-149-4	Cedar Island Bay	Entire Bay, including all inlets, coves, and bays, not otherwise named in the schedule of classifications	2,857.0	S Acres	SA;ORW,NSW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-4-1	Great Pond	From source to Cedar Island Bay	3.0	S Acres	SA;ORW,NSW	5		
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2008			
>	27-149-4-2	Back Bay	Entire Bay, including all inlets, coves, and bays, not otherwise named in the schedule of classifications	850.6	S Acres	SA;ORW,NSW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-4-2-1	Great Pond	From Pamlico Sound to Back Bay	42.5	S Acres	SA;ORW,NSW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-4-2-10	Hog Island Narrows	From Cedar Island Bay to Back Bay	11.5	S Acres	SA;ORW,NSW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-4-2-2	Noras Cove	Entire Cove	29.6	S Acres	SA;ORW,NSW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-4-2-3	End of Island Slough	From Pamlico Sound to Back Bay	2.8	S Acres	SA;ORW,NSW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-4-2-4	Snake Gut	From Pamlico Sound to Back Bay	4.8	S Acres	SA;ORW,NSW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	27-149-4-2-5	Fullers Ditch	From Pamlico Sound to Back Bay	6.9	S Acres	SA;ORW,NSW	2		
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				

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Pamlico Sound

Tar-Pamlico River Basin		10-digit Watershed		0302010504	Cape Lookout Shoals-Core Banks		
>	AU Number	Name	Description	Length or Area	Units	Classification	Category

	Category	Rating	Use	Reason for Rating	Parameter	Year		
>	27-149-4-2-6	The Passage	From Pamlico Sound to Back Bay		70.6	S Acres	SA;ORW,NSW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	27-149-4-2-7	Drum Pond	From source to Back Bay		0.3	S Acres	SA;ORW,NSW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	27-149-4-2-8	Goose Bay	Entire Bay		33.4	S Acres	SA;ORW,NSW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	27-149-4-2-8-1	Oyster Creek	From Core Sound to Goose Bay		45.8	S Acres	SA;ORW,NSW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			
>	27-149-4-2-9	Great Ditch	From Core Sound to Goose Bay		47.6	S Acres	SA;ORW,NSW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved			

12-digit Subwatershed				030201050402		Styron Bay-Cedar Inlet		
>	21-35-7-10-(5)a	Nelson Bay	From a line extending from mouth of Broad Creek due east across Nelson Bay to Core Sound		17.3	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002	
>	21-35-7-10-(5)b	Nelson Bay	From a line extending from mouth of Broad Creek due east across Nelson Bay to Core Sound		786.8	S Acres	SA;HQW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Conditionally Approved		2002	

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Pamlico Sound

Tar-Pamlico River Basin			10-digit Watershed		0302010504		Cape Lookout Shoals-Core Banks		
>	AU Number	Name	Description		Length or Area	Units	Classification	Category	
	Category	Rating	Use	Reason for Rating	Parameter		Year		
>	21-35-7-10-4	Broad Creek (Nelson Bay)	From source to Nelson Bay		40.6	S Acres	SC	5	
	5	Impaired	Aquatic Life	Standard Violation	Copper		2008		
	3n2	Not Rated	Aquatic Life	Data Inconclusive	Chlorophyll a				
	3a	Not Rated	Aquatic Life	Data Inconclusive	Low Dissolved Oxygen				
	3a	Not Rated	Aquatic Life	Data Inconclusive	Low pH				
	1	Supporting	Recreation	No Criteria Exceeded	Fecal Coliform (recreation)				
>	21-35-7-10-6a	Lewis Creek	From source to Nelson Bay		7.8	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002		
>	21-35-7-10-6b	Lewis Creek	From source to Nelson Bay		12.6	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Conditionally Approved		2002		
>	21-35-7-10-7	Pasture Creek	From source to Nelson Bay		6.0	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Conditionally Approved		2002		
>	21-35-7-11	Willis Creek	From source to Core Sound		54.8	S Acres	SA;ORW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Conditionally Approved		2002		
>	21-35-7-12	Fulchers Creek	From source to Core Sound		39.5	S Acres	SA;ORW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	21-35-7-3-1	Glover Creek	From source to Styron Bay		10.9	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited		2002		

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Pamlico Sound

Tar-Pamlico River Basin			10-digit Watershed		0302010504		Cape Lookout Shoals-Core Banks		
> AU Number	Name	Description	Length or Area	Units	Classification	Category			
	Category	Rating	Use	Reason for Rating	Parameter	Year			
> 21-35-7-3-2	Annis Run		From source to Styron Bay		4.1	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 21-35-7-3-3-1	Cedar Creek		From source to Styron Creek		18.8	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2002			
> 21-35-7-3-3a	Styron Creek		From source to DEH closure line at mouth of Cedar Creek		10.1	S Acres	SA;HQW	5	
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited	2002			
> 21-35-7-3-3b	Styron Creek		From DEH closure line at mouth of Cedar Creek to Core to Styron Bay		6.6	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 21-35-7-3a	Styron Bay		Entire Bay with exception of DEH closed area		419.7	S Acres	SA;ORW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 21-35-7-3b	Styron Bay		DEH closed area		10.8	S Acres	SA;ORW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 21-35-7-4	Negro Creek		From source to Core Sound		1.8	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 21-35-7-5	Horsepen Creek		From source to Core Sound		0.7	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
> 21-35-7-6	Sheep Pen Creek		From source to Core Sound		0.6	S Acres	SA;HQW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				

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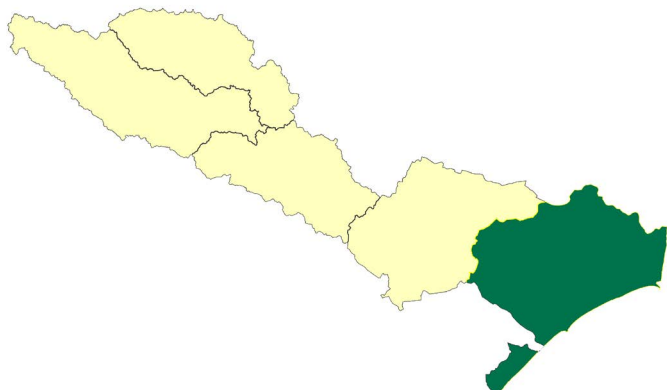
Pamlico Sound

Tar-Pamlico River Basin			10-digit Watershed		0302010504		Cape Lookout Shoals-Core Banks		
>	AU Number	Name	Description		Length or Area	Units	Classification	Category	
	Category	Rating	Use	Reason for Rating	Parameter		Year		
>	21-35-7-7	Gutter Creek	From source to Core Sound			35.3	S Acres	SA;HQW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	21-35-7-8	Cedar Inlet	From Old Channel to Core Sound			70.0	S Acres	SA;ORW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	21-35-7-8-1	Old Channel	From Core Sound to Cedar Inlet			110.5	S Acres	SA;ORW	2
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	21-35-7-9	Yaupon Hammock Bay	Entire Gut		9.3	S Acres	SA;ORW	2	
	1	Supporting	Shellfish Harvesting	No Criteria Exceeded	Shellfish Growing Area-Approved				
>	21-35-7a1a	Core Sound	Luther Smith and Sons Fish House			1.0	S Acres	SA;ORW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited			2008	
>	21-35-7a1b	Core Sound	Willis Texaco Marina			1.0	S Acres	SA;ORW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited			2008	
>	21-35-7a3	Core Sound	Portion of the following in subbasin 030504 from northern boundary of White Oak River Basin (a line from Hall Point to Drum Inlet) to Back Sound excluding conditionally approved. Morris Marina			3.8	S Acres	SA;ORW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited			2008	
>	21-35-7a4	Core Sound	Portion of the following in subbasin 030504 from northern boundary of White Oak River Basin (a line from Hall Point to Drum Inlet) to Back Sound excluding conditionally approved. Clayton Fulchers Fish House			10.9	S Acres	SA;ORW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Prohibited			2008	

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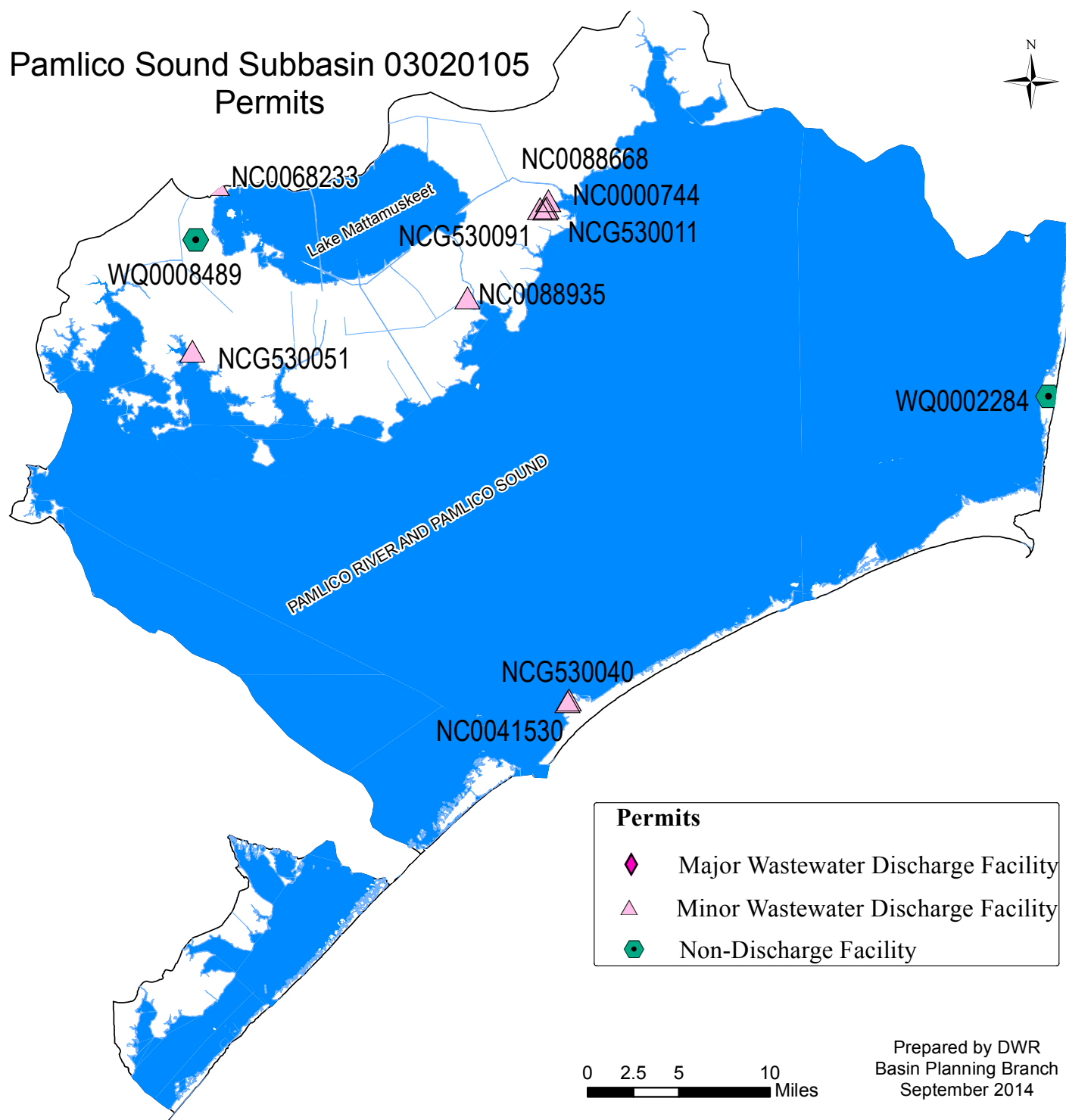
Tar-Pamlico River Basin			10-digit Watershed		0302010504		Cape Lookout Shoals-Core Banks	
>	AU Number	Name	Description		Length or Area	Units	Classification	Category
	Category	Rating	Use	Reason for Rating	Parameter		Year	
>	21-35-7c	Core Sound	Conditionally approved open area at the mouth of Nelson Bay		196.6	S Acres	SA;ORW	5
	5	Impaired	Shellfish Harvesting	Loss of Use	Shellfish Growing Area-Conditionally Approved		2002	



PERMITTED & REGISTERED ACTIVITIES

PAMLICO SOUND SUBBASIN 03020105

Pamlico Sound Subbasin 03020105
Permits



WASTEWATER DISCHARGERS

The National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States, as authorized by the Clean Water Act. Non-compliance with permit limits on wastewater flow and constituents can lead to discharge of pollutants that degrade surface waters making them unsafe for drinking, fishing, swimming, and other activities. The NPDES Permitting and Compliance Programs of DWR are responsible for administering the program for the state. These permits are reviewed and are potentially renewed every 5 years. A list of NPDES permits are listed in Table 1 and a map of major facilities are located here: <http://portal.ncdenr.org/web/wq/npdes-major-facility-map> and minor facilities here: <http://portal.ncdenr.org/web/wq/npdes-minor-facility-map>.

TABLE 1: NPDES DISCHARGE PERMITS IN HUC 03020105

PERMIT #	FACILITY NAME	OWNER TYPE	PERMIT TYPE	CLASS	RECEIVING STREAM	PERMIT FLOW MGD
NC0000744	Captain Charlie's Seafood Inc	Non-Gov't	Industrial Process & Commercial Wastewater	Minor	Far Creek	
NC0041530	Ocracoke Reverse Osmosis WTP	Non-Gov't	Water Plants and Water Conditioning	Minor	Pamlico Sound	0.45
NC0085707	Cape Hatteras Reverse Osmosis WTP	Non-Gov't	Water Plants and Water Conditioning	Minor	Pamlico Sound	1.8
NC0088668	Engelhard WTP	Gov't - County	Water Plants and Water Conditioning	Minor		0.11
NC0088935	Carolinas Best	Individual	Industrial Process & Commercial Wastewater	Minor	Gray Ditch	

ON-SITE WASTEWATER TREATMENT SYSTEMS (SEPTIC SYSTEMS)

Wastewater from many households is treated on-site through the use of permitted septic systems instead of being sent to a wastewater treatment facility. Poorly planned and/or maintained systems can fail and contribute to nonpoint source pollution. Wastewater from failing septic systems can contaminate groundwater and surface water. Failing septic systems are health hazards and are considered illegal discharges of wastewater if surface waters are impacted. Information about the proper installation and maintenance of septic tanks can be obtained by contacting the Department of Environmental Health and local county health departments. Local health departments are responsible for ensuring that new systems are sited and constructed properly and an adequate repair area is available. County, town and city planners need to understand the economic and human health ramifications caused by failing septic systems and plan for long-term septic system sustainability.

In 2007, North Carolina Agricultural Research Service completed a report concerning nitrogen contributions from on-site wastewater systems for each river basin. The results for this subbasin based on 1990 census data indicate a population of 3,763 people using 2,067 septic systems resulting in a nitrogen loading of 37,628 lbs/yr and nitrogen loading rate of 105 lbs/mi²/yr. (Pradhan et al. 2007).

Non-Discharge

Non-discharge systems have been the preferred alternative to discharge to surface waters for some NSW waterbodies and DWR requires all new and expanding NPDES permit applicants to provide documentation that considers alternatives to surface waters. Non-discharge wastewater options include spray irrigation, rapid infiltration basins, and drip irrigation systems. Although these systems are operated without a discharge to surface waters, they still require a DWR permit. The permit insures that treated wastewater is applied to the land at a rate that is protective of groundwater resources, and does not produce ponding or runoff into a waterbody. More information about land application and non-discharge requirements can be found on the DWR Non-Discharge Permitting Unit's website: <http://portal.ncdenr.org/web/wq/aps/lau>. Non-discharge permits in this subbasin are listed in Table 2 and a map of facilities is located here: <http://portal.ncdenr.org/web/wq/aps/lau/map>.

TABLE 2: NON-DISCHARGE PERMITS IN HUC 03020105

FACILITY NAME	PERMIT TYPE	PERMIT #	SIZE
Kinnakeet Shores	Reuse	WQ0002284	Major
Enlisted Mens Barracks - Atlantic Airfield WW	Surface Irrigation	WQ0005233	Minor
Hyde Co Boe-Mattamuskeet Imp	Surface Irrigation	WQ0006131	Minor
NC Prison Facility at Piney Woods	Surface Irrigation	WQ0008489	Major
Single Family Residence	Surface Irrigation	WQ0015234	Minor
Kinnakeet Shores	Gravity Sewer Extension, Pump Stations, & Pressure Sewer	WQ0017527	Minor
Engelhard Sanitary District	Surface Irrigation	WQ0017625	Major

Run-off and spills are not common at non-discharge facilities. In general, maintaining compliance with permit conditions largely falls back to having a properly managed facility. Aging sewer systems may lead to increased flows from inflow and infiltration or a facility may not be properly prepared to expand as flows increase and the upper limits of a plant's capacity are reached. Non-discharge facilities, just like any other, must properly plan for any elevated flows and take action to ensure that the facility is capable of managing the wastewater.

Groundwater moving into surface water is a mechanism to introduce nutrients into the surface water system in the absence of direct discharges and in NSW systems it is important to be able to better quantify these potential nutrient loads. Some facilities have a groundwater monitoring program to measure compliance with groundwater quality standards. However, it should be noted that a facility can be compliant with groundwater quality requirements while still contributing to the overall nutrient loading of a surface water system. A better understanding of the groundwater/surface water interaction process at non-discharge facilities may help to identify and quantify nutrient loading from these locations.

Animal Operations

The [Animal Feeding Operations Unit](#) is responsible for the permitting and compliance activities of animal feeding operations across the state. A map of permitted animal facilities is available here: <http://portal.ncdenr.org/web/wq/animal-facility-map>.

WATER WITHDRAWALS

Agricultural water users that withdraw one million gallons of water a day or more and non-agricultural water users that withdraw one hundred thousand gallons of water a day are required to register with DWR. (Table 3). Registrants must also report their water usage annually; annual reports can be found at: http://www.ncwater.org/Permits_and_Registration/Water_Withdrawal_and_Transfer_Registration/report

TABLE 3: WATER WITHDRAWALS

REGISTRATION #	COUNTY	FACILITY NAME
CU1096	Carteret	Coastal USA Fish Company
CUR0061	Carteret	Coastal USA Fish Company
CU1116	Hyde	FLYWAY FARMS HUNTING CLUB
CU3162	Carteret	Marina Village - Snug Harbor H2O System
CUR0008	Carteret	Snug Harbor on Nelson Bay
CU1060	Carteret	US Marine Corps - Cherry Point

CENTRAL COASTAL PLAIN CAPACITY USE AREA

In 2001, the North Carolina EMC enacted the Central Coastal Plain Capacity Use Area (CCPCUA) rules. These regulations were developed to control groundwater use in the Cretaceous Aquifers in response to decreasing groundwater levels and saltwater intrusion. The CCPCUA rules require groundwater users in the impacted areas to reduce their consumption in three phases between 2008 and 2018. In this subbasin Carteret, Dare, Hyde, and Pamlico counties are within the CCPCUA.

LOCAL WATER SUPPLIES

Local governments and other large community water systems that provide water to the public are required to prepare [local water supply plans](#) (LWSP). The LWSPs describe current and projected water sources and demands. Customer demands can be met by withdrawing surface water or groundwater and by purchasing water from a neighboring community. LWSPs with service within this subbasin are listed in table . Details about each LWSP can be found at: http://www.ncwater.org/Water_Supply_Planning/Local_Water_Supply_Plan/search.php

TABLE 4: LOCAL WATER SUPPLIES

PWS ID	NAME	OWNERSHIP
0428025	DARE CO-CAPE HATTERAS WATER	DARE COUNTY
0428030	DARE COUNTY WATER SYSTEM	DARE COUNTY
0448020	OCRACOE SANITARY DISTRICT	OCRACOE SANITARY DISTRICT

PUBLIC WATER SYSTEMS

In addition to the Local Water Supplies, public water systems found within this subbasin are listed in table 5. Public water supplies are those which provide piped drinking water to at least 15 connections or 25 or more people 60 or more days per year. These water systems must report their status to the [Public Water Supply Section](#) of DWR. Community systems are those that supplies water to the same population year-round, a transient non-community system provides water in a place such as a gas station or campground where people do not remain for long periods of time and non-transient non-community systems regularly supply water to at least 25 of the same people at least six months per year, but not year-round.

TABLE 5: PUBLIC WATER SYSTEMS IN SUBBASIN 03020105

PWS ID	NAME	TYPE
0416113	CARTERET GENERAL HOSPITAL- TAYLOR EXTENDED CARE	Community
0416181	SNUG HARBOR MANAGEMENT LLC	Community
0416402	DOT-CEDAR ISLAND FERRY TERM	Non-Transient Non-Community
0416410	CARTERET COUNTY SCHOOLS-ATLANTIC ELEMENTARY	Non-Transient Non-Community
0416447	MCAS CHERRY POINT	Non-Transient Non-Community
0416451	SEA LEVEL INN RESTAURANT	Transient Non-Community
0416505	CARTERET COUNTY PARKS & REC-MARINERS PARK	Transient Non-Community
0428422	CAPE HATTERAS NATL SEASHORE- FRISCO CAMPGROUND	Transient Non-Community
0428469	AVON CAFE	Transient Non-Community
6048001	CREEKSIDE CAFE	Transient Non-Community
6048003	ALLIGATOR RIVER GROWERS	Transient Non-Community
7016018	CEDAR CREEK CAMPGROUND	Transient Non-Community

RIPIARIAN BUFFERS

Riparian buffers in the basin are to be protected and maintained on both sides of intermittent and perennial streams, lakes, ponds, and estuarine waters. Tar-Pamlico River Basin Buffer Rules ([15A NCAC 2B.0259](#)) do not establish new buffers unless the existing use in the buffer area changes. The footprints of existing uses such as agriculture, buildings, commercial, and other facilities, maintained lawns, utility lines, and on-site wastewater systems are exempt. A total of 50 feet of riparian area is required on each side of waterbodies; within this 50 feet, the first 30 feet is to remain undisturbed and the outer 20 feet must be vegetated. Activities that disturb this buffer require a buffer authorization from DWR or may require a major variance approval from the Environmental Management Commission. More information about the buffer rules are available at: <http://portal.ncdenr.org/web/wq/swp/ws/401/riparianbuffers>.

WETLAND OR SURFACE WATER DISTURBANCE (401 CERTIFICATION)

The “401” refers to Section 401 of the Clean Water Act. The North Carolina DWR is the state agency responsible for issuing 401 water quality certifications (WQC). When the state issues a 401 certification this certifies that a given project will not degrade waters of the state or violate State water quality standards. A 401 WQC is required for any federally permitted or licensed activity that may result in a discharge to waters of the U.S. Typically, if the United States Army Corps of Engineers determines that a 404 Permit or Section 10 Permit is required because a proposed project involves impacts to wetlands or surface waters, then a 401 WQC is also required. A map of 401 WQCs is found here: <http://portal.ncdenr.org/web/wq/401-buffer-permit-tracker>. Examples of activities that may require permits include:

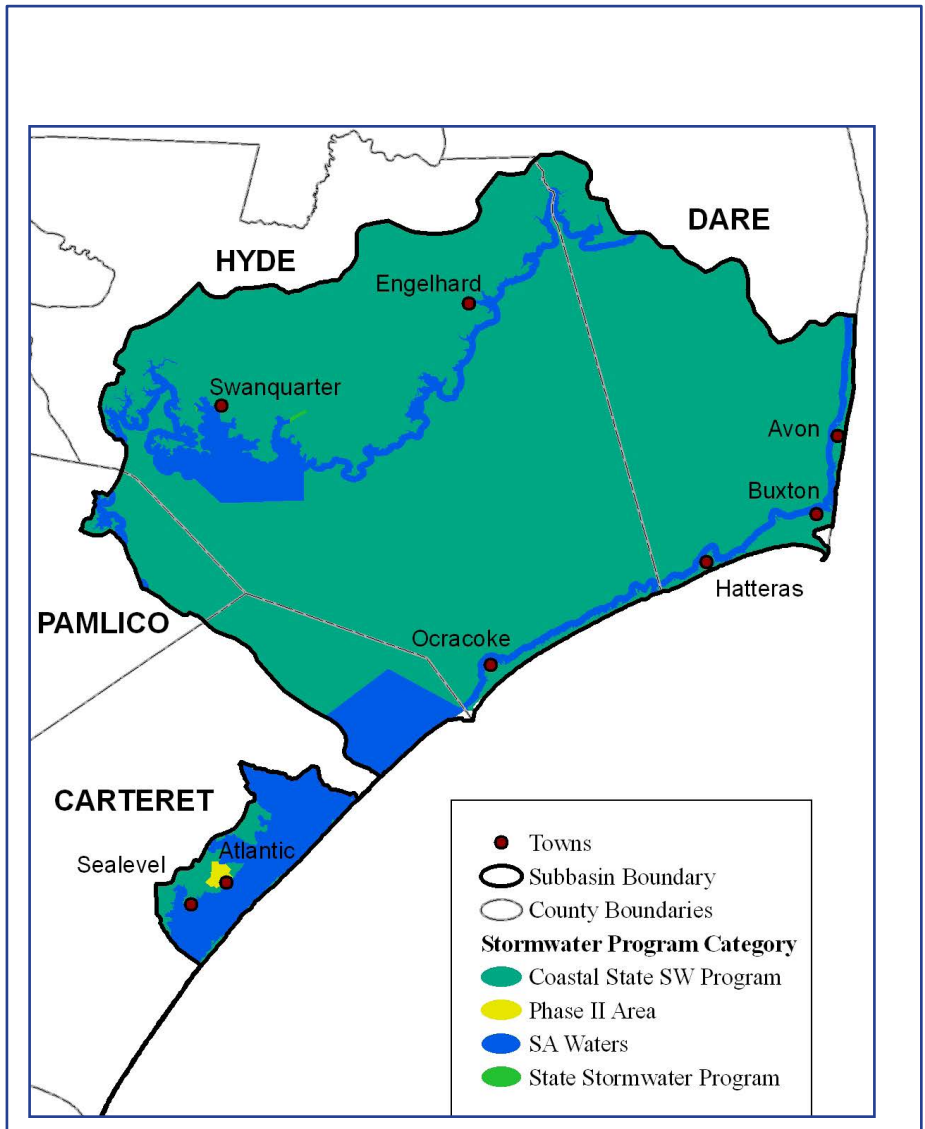
- Any disturbance to the stream bed or banks,
- Any disturbance to a wetland,
- The damming of a stream channel to create a pond or lake,
- Placement of any material within a stream, wetland, or open water, including material that is necessary for construction, culvert installation, causeways, road fills, dams, dikes, or artificial islands, property protection, reclamation devices and fill for pipes or utility lines, and

- Temporary impacts including dewatering of dredged material prior to final disposal and temporary fill for access roads, cofferdams, storage, and work areas.

STORMWATER

The NC Division of Energy Minerals and Land Resources (DEMLR) administers several different stormwater programs. The goal of the DEMLR stormwater discharge permitting regulations and programs is to prevent pollution from entering the waters of the state via stormwater runoff control. These stormwater control programs include Phase II NPDES and State post-construction, coastal stormwater, HQW/ORW stormwater, Tar-Pamlico River Basin NSW stormwater, and associated with the Water Supply Watershed Program requirements. Figure 2 indicates the different stormwater programs in this subbasin.

All counties in this subbasin are required to implement the Coastal Stormwater Rules. As of July 2009 there are five general stormwater permits issued in this subbasin.



References:

Pradhan, S.S., Hoover, M.T., Austin, R.E. and H. A. Devine. 2007. Potential Nitrogen Contributions from On-site Wastewater Treatment Systems to North Carolina's River Basins and Sub-basins Technical Bulletin 324. North Carolina Agricultural Research Service North Carolina State University Raleigh, NC.